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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,449	03/23/2004	Takashi Iwami	041514-5329	1802

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DRINKER BIDDLE & REATH (DC)  
1500 K STREET, N.W.  
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WASHINGTON, DC 20005-1209

EXAMINER
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HAILEMARIAM, EMMANUEL

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/806,449

Applicant(s)

IWAMI ET AL.

Examiner

Emmanuel Hailemariam

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/05/06, 11/30/05, 03/23/04</u>                              | 6) <input type="checkbox"/> Other: ____                           |

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1- 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urakabe et al. (6208084).

**As to claim1, Urakabe et al.** discloses a display panel driving method for driving a display panel the display panel (See fig. 1 Display panel) including a plurality of row electrode pairs (fig.11 (08,109), a plurality of column electrodes arranged intersecting the plurality of row electrode pairs (fig.1 (108,110,102b) ) , and capacitive light-emitting (see fig.1-3 (104) col. 1 lines 44 - 55) is applied to the address electrode a corresponding to the sell to be lighted) elements arranged at intersecting points of the row electrode pairs and the column electrodes, and in which driving is performed by repeating a driving step that comprises an addressing step and a sustain step (col.3 lines 45-51), wherein: during the period of the sustain step, an output terminal of a column electrode drive circuit connected to the row (col.11 lines 12-24 ) electrodes is maintained in a high impedance state (fig.1 (108,110,) (address electrodes are conductors having high impedance see. fig.11), and bipolar pulse signals (col.2 lines 32-36 bipolar signals) with different phases are supplied (col.5 lines 26-38 ) to each of row . As to a first row electrode and a second row electrode that constitute each of the row electrode pairs It well know in the art (see fig.11).

**As to claim 2, as applied claim above Urakabe et al.** disclose a bipolar pulse signal whose phase is a half cycle is well known (col.2 lines 31- 36) different from the bipolar pulse signal supplied to the first row electrodes is supplied to the second row electrodes (col.5 lines 26-38 also see fig.11 (1<sup>st</sup> and 2<sup>nd</sup> row electrodes).

**As to claim 3**, as applied claim above **Urakabe et al** disclose one cycle (col.1 lines 63-67) of the bipolar pulse signal comprises a first half-cycle (col.2lines 31-36 ) that contains a pulse of a predetermined polarity ( col.5 lines 34-50 ) having alternating polarity ), and a second half-cycle that contains a pulse of a polarity opposite to this pulse , wherein the pulse contained in the second half-cycle (see fig. 8 -10 col.5 lines 26-38 ) rises after the elapse of the rise time of the pulse in the first half-cycle, and wherein the pulse contained in the first half-cycle falls after the elapse of the fall time of the pulse in the second half-cycle (see Fig.8 –10 col.5. lines 26-38 ).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urakabe et al. (6208084) in view of . Matthes et al. (4612611).

**As to claim 4**, Urakabe et al. discloses a rising edge portions and falling edge portions of positive pulses and negative pulses contained in the bipolar pulse signals (col. 16 lines 21-27). But it doesn't teach that it is based on resonant circuit.

Matthes disclose a bipolar pulse signals (col.4 lines 65) are caused by a shift in electric potential based on resonance of a resonance circuit (col.1 lines 57- 65, col. 2 lines 41-51). Besides, Matthes et al. (hereinafter, Matthes ) however, teaches that it is well known in the art to use a resonant circuit in any electronic devices. (see fig. 1; Col.1 lines 60-65 and col. 2 lines 41-51).

Urakabe and Mathes are analogous arts because they are from the same field of endeavor namely driving display panel.

Therefore, It would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate Matthes resonant circuit with Urakabe display panel which can be rapidly started even with changing load and thus changing natural frequency and damping.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chase et al. (6646387) disclose ac type plasma display panel having energy recovery unit in sustain driver.

### Correspondence

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Hailemariam whose telephone number is 571-270-1545. The examiner can normally be reached on M-F 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.H

01/22/07

  
AMARE MENGISTU  
SUPERVISORY PATENT EXAMINER